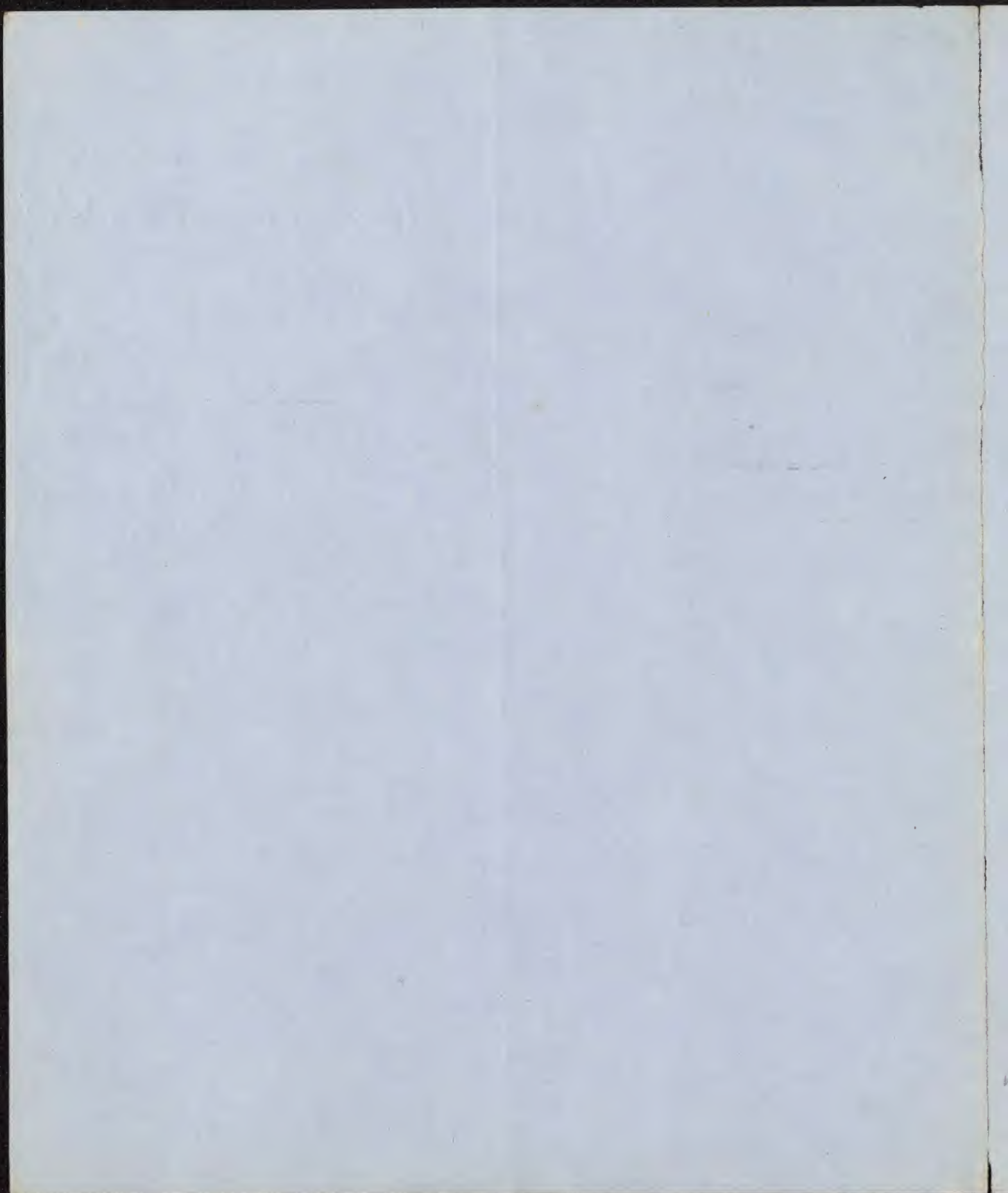
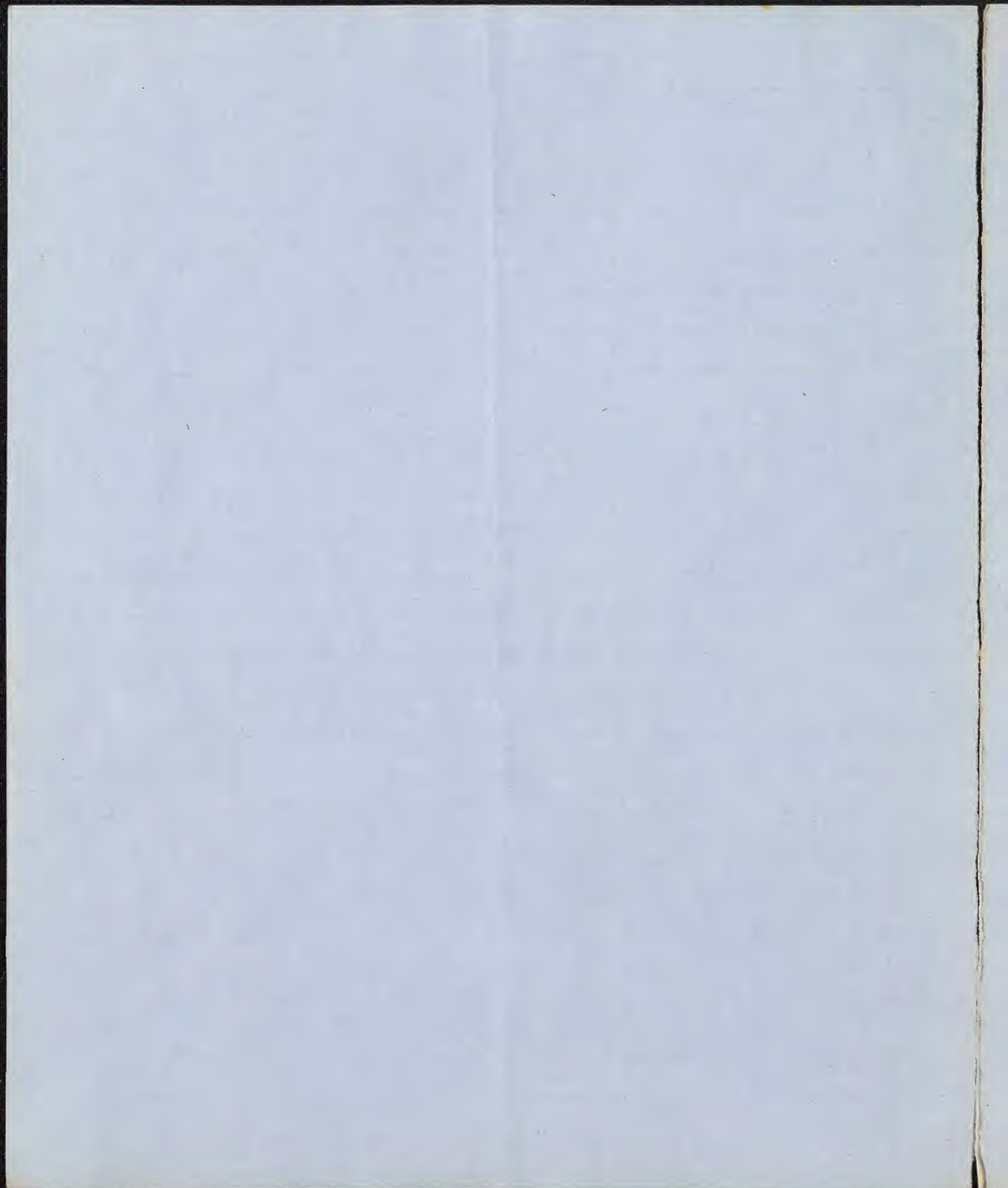


And give you ~~a~~ gift of healing, — which
you may take with you, & so do marvellous
things at ^{your} homes? ~~S~~ — ~~It cannot be that this is the~~
for the era of hero-worship is ^{now} over;
perhaps too soon, — but it has gone.
No longer does Superstition linger ^{even} around
its once more than hallowed Reliquaries; ~~hunts~~
far less ~~does~~ the great names of Science
now win pilgrims to their graves for worship's
sake. And ~~although~~, ^{although} therefore, ~~—~~ almost within
the reach of my voice, rest the remains
of a ~~Pytheas~~, a Physick, a Wistar, a Kuhn,
a Parrish, a Chapman, ^{their} ~~doctors~~, ~~compeers~~, ~~with~~
~~the~~, — yet not for this do you ^{now} gather
near their former homes, — unless ~~some~~ ~~fragments~~
of their mantles, — some faint breath of
their spirit, be thought to have fallen
upon & to animate those who follow ~~up~~ their tasks.

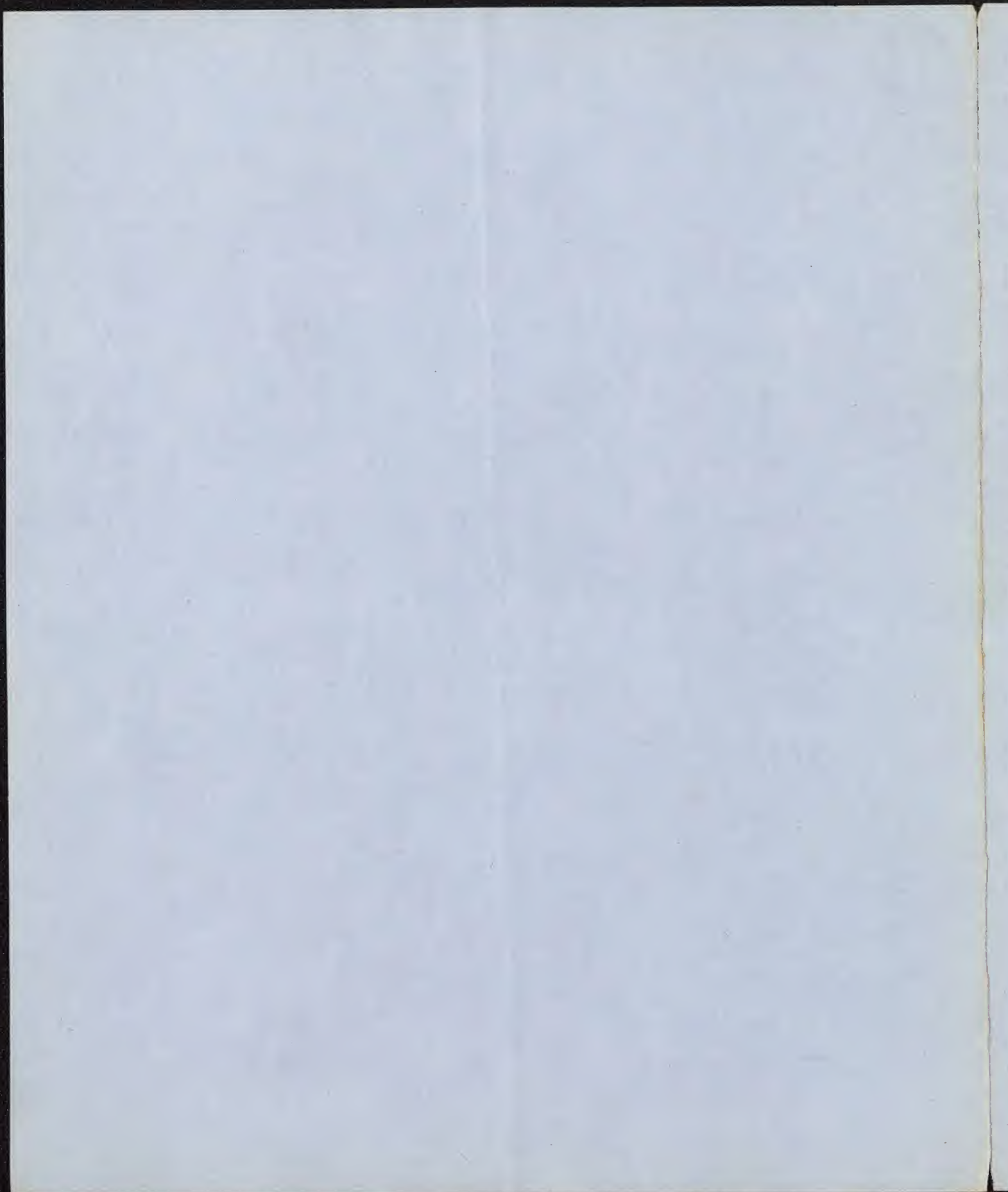


I have
You, ^{now} coming gentlemen — upon a
most rational errand: as to an armory, —
where you ~~are~~ ^{may} become armed and equipped,
for ^{hard} ~~the~~ ^{which before you} conflict, with the great enemies
& destructive pursuers of the human race;
~~with Pain~~ ^{against} ~~against~~ Infirmit, Pestilence
and Death. You come not to find here
in our ready hands all the polished
& sharpened weapons for ~~this~~ conflict, — but
with your own hands to dig the ~~mineral~~
ore out of the earth, when we guide you, —
& to refine & adjust & finish it yourselves,
till, like ~~the~~ ^{the} helmeted and booted knights ^{of old}, ~~if~~ we
out you soldiers for the army of health &
medicine. — Or, you are come as to
a placer, — to a gold mine of knowledge,
^{which} we have been digging for ^{little} ~~an~~ while before
you, — As the medical man is forever



a Thicket; and, - much more ^{can} ^{gentlemen}
we do you, - let me assure you, -
~~nothing~~ by direction when and how
some quartz veins may be worked to yield the
pure gold, - or the sands of some
running streams made to yield their
heavy dust from the dross, - than
by any simple contributions from our
own accumulated piles.

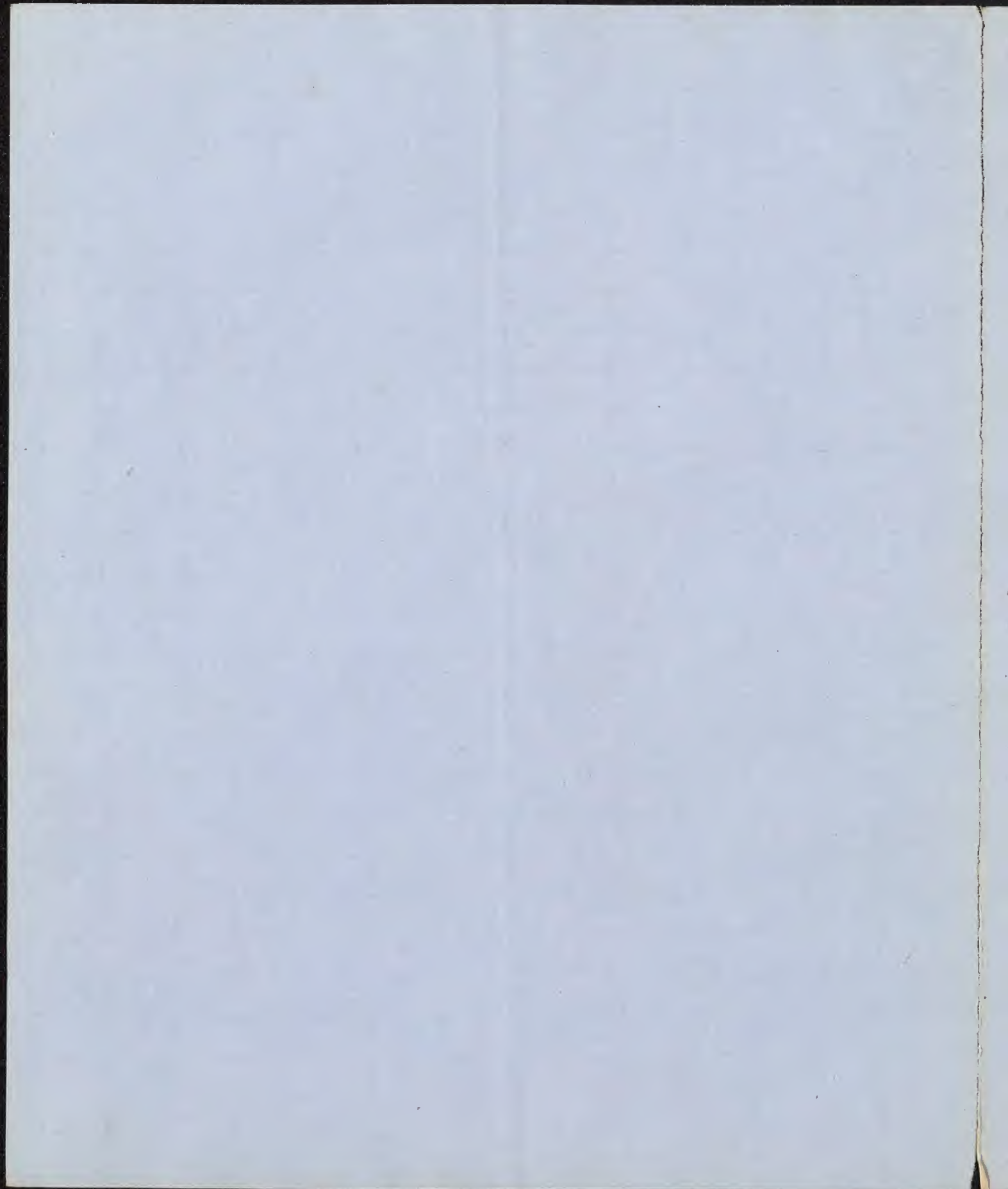
^{you must work, -}
We must work, - gentlemen, -
for without much labor there is no knowledge.
Ars longa, - vita brevis ^{is a true maxim it was} est, - (for many
centuries) - nay for thousands of years,
has the slow mind-craft of strong-headed
Keen-eyed men been gathering the stores of
medical knowledge & its collateral sciences;
can any one ^{then,} ^{now,} ^{hope to} grasp it in a day, - ^{or} a
year, - ^{may,} ⁱⁿ a lifetime, - or ten life-times,



if he had them? There ^{thus} is a boundless-
ness in the actual ^{present} reach of human knowledge,
what may leave to any mind, - however
ambitious of exertions - "ample room
to verge enough" for its ambition.

But, gentlemen, there is another reason
why we must labor; - (why in our
vocation) - more than in many others,
what we earn must be by the ^{very} sweat
of our own brows. (This reason is) -
because our Science is not perfect.

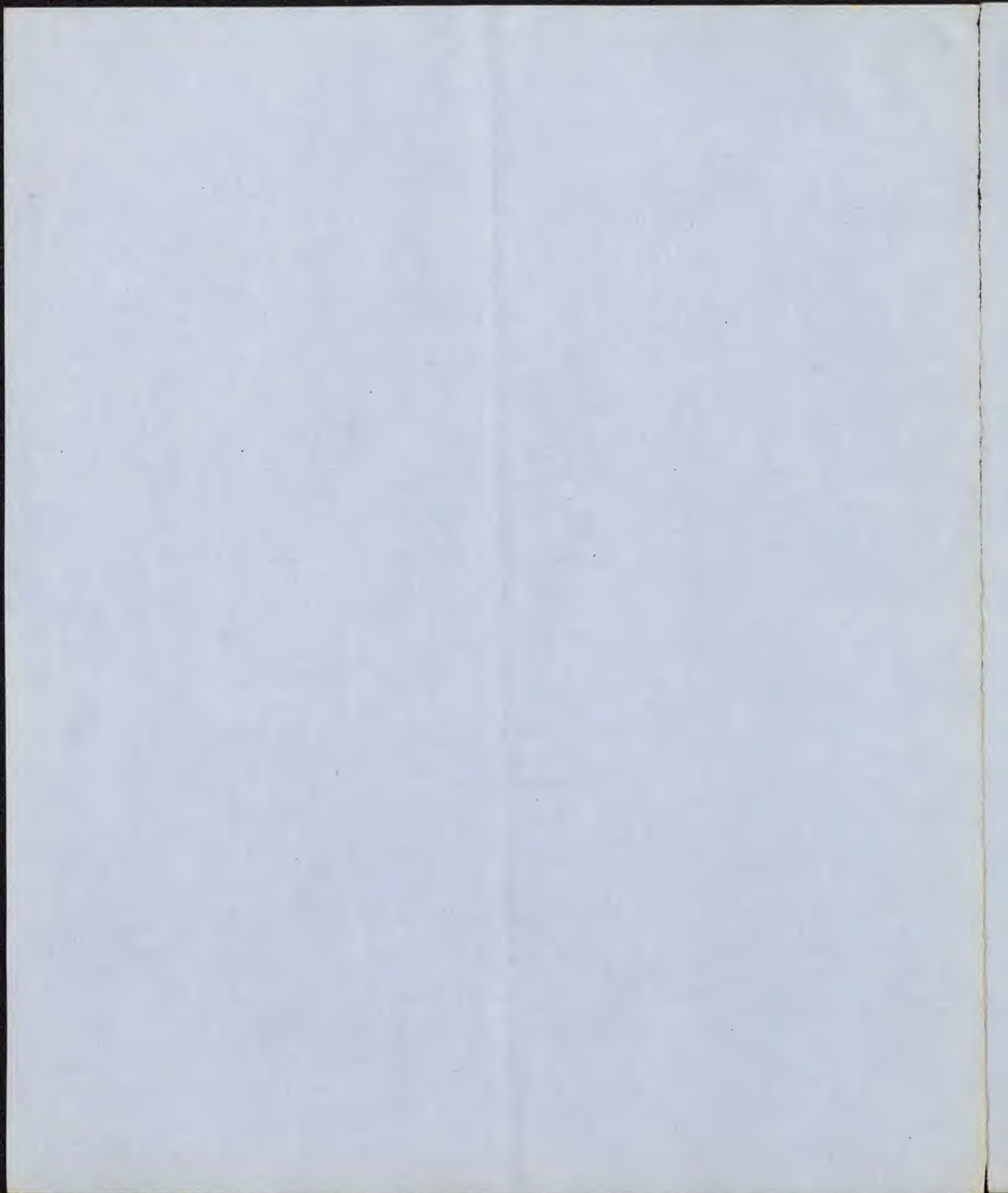
Let no man begin the study with the
supposition that it is perfect. I would
rather, so that you may estimate the character
of ~~your~~ the obstacles you will meet -
not only at the beginning, but in the full
tide of your career, - give you some



brief evidence of its imperfection,
by telling you of some things which
it, — Medicine, manifestly wants,
and waits to obtain.

It needs, then, — to enter at once
upon the catalogue, — more science &
system, — less empiricism; more certainty
of calculation — ^{more principle, & less experiment.} less conjecture; ^ Allow me
to explain these assertions.

Observation, — which is the basis of
empiricism, — ^{that is} the simple ascertainment of
facts, unexplained as facts, — cannot be
divorced from any Natural Science. It
must be an essential integral part of
the knowledge of all diseases & of all
medicines & of their action upon each other.
We cannot do without empiricism, therefore.



But, — the mere collection of un-
-systematized facts is but the first
step toward the formation of a
Science: most especially, — when
the collection of these facts is itself
incomplete. We have not yet near
all the facts regarding any one single
variety of disease! Do you start at this
assertion? Then, understand that I mean, — the
radical, — intrinsic, essential ultimate facts.
For instance, — take the familiar malady
of Consumption; — or, ^{that} of Intermittent Fever.
Do we know the beginnings of ~~consump~~ tuberculosis?
We may say that it ^{has to do with} is a deficient nutrition,
an imperfect plasma: and ^{as some authors like} Hughes Bennett, may
say so & be well believed; but even then we
do not get at the bottom of the matter. Why,

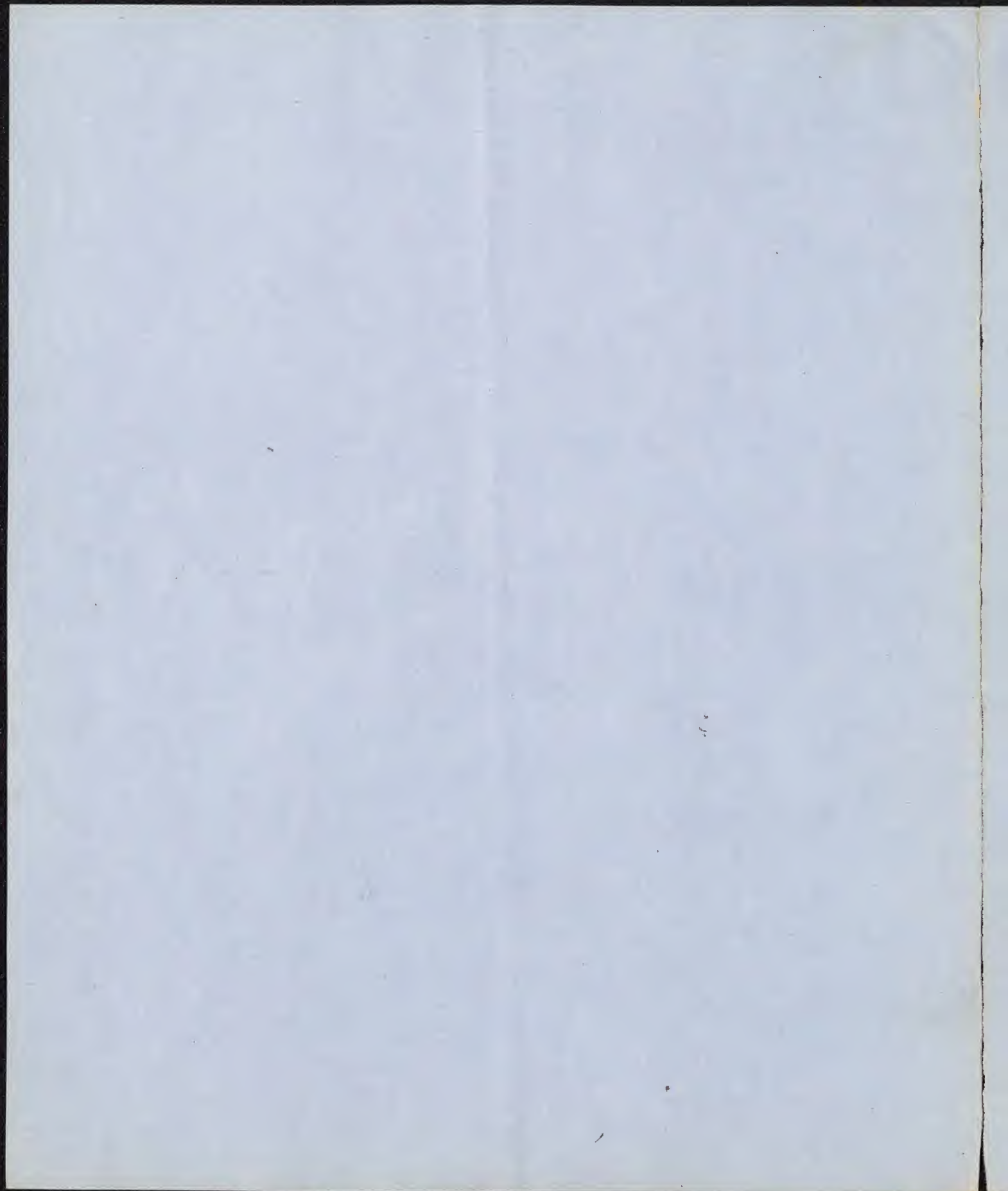
† There was a time, when medical men were ^{almost} afraid
to speak of these imperfections of their favorite science.
But, now, — we have so much that is really valuable,
and so much more coming before us in certain anticipation,
that we can speak of them, not only without fear,
but with emphasis; as things which we ~~must~~ lament, —
but which must not, cannot exist must longer be
lamented.

* It is wanted, that we should approach more nearly to the
accuracy of observation ^{& record}, characteristic of the other sciences, —
as Botany, — Ecology, — astronomy, — ~~to the end that we may~~
* place our science upon a similar basis of exactness.

in some cases, does imperfect nutrition
cause marasmus, — or simple undiseased
emaciation, — ~~in others~~ or stunted growth
& debility, — and in others scrofula, or
tuberculosis?

And who can tell the little in-
fluence which causes, under the name of
Miasmata, the various fevers of our country?
Or who can tell, in full, set terms, — the exact pathology of intermittent fever?
It may be well established, then, — from these
simple instances, — that our science is
deficient in facts.[†] It may be even
said, that our scientific medical
men have ^{often been} deficient in their mode of accum-
ulating elementary facts. There has ^{been} too little sim-
plicity, accuracy, & directness, — usually,
in the manner in which diseases, and the effects
of remedies, have been observed, described, and
reasoned upon; and hence, — the vague &
often unsatisfactory conjectural nature of our treatment.*

* Well known as that disease is its history and symptoms.

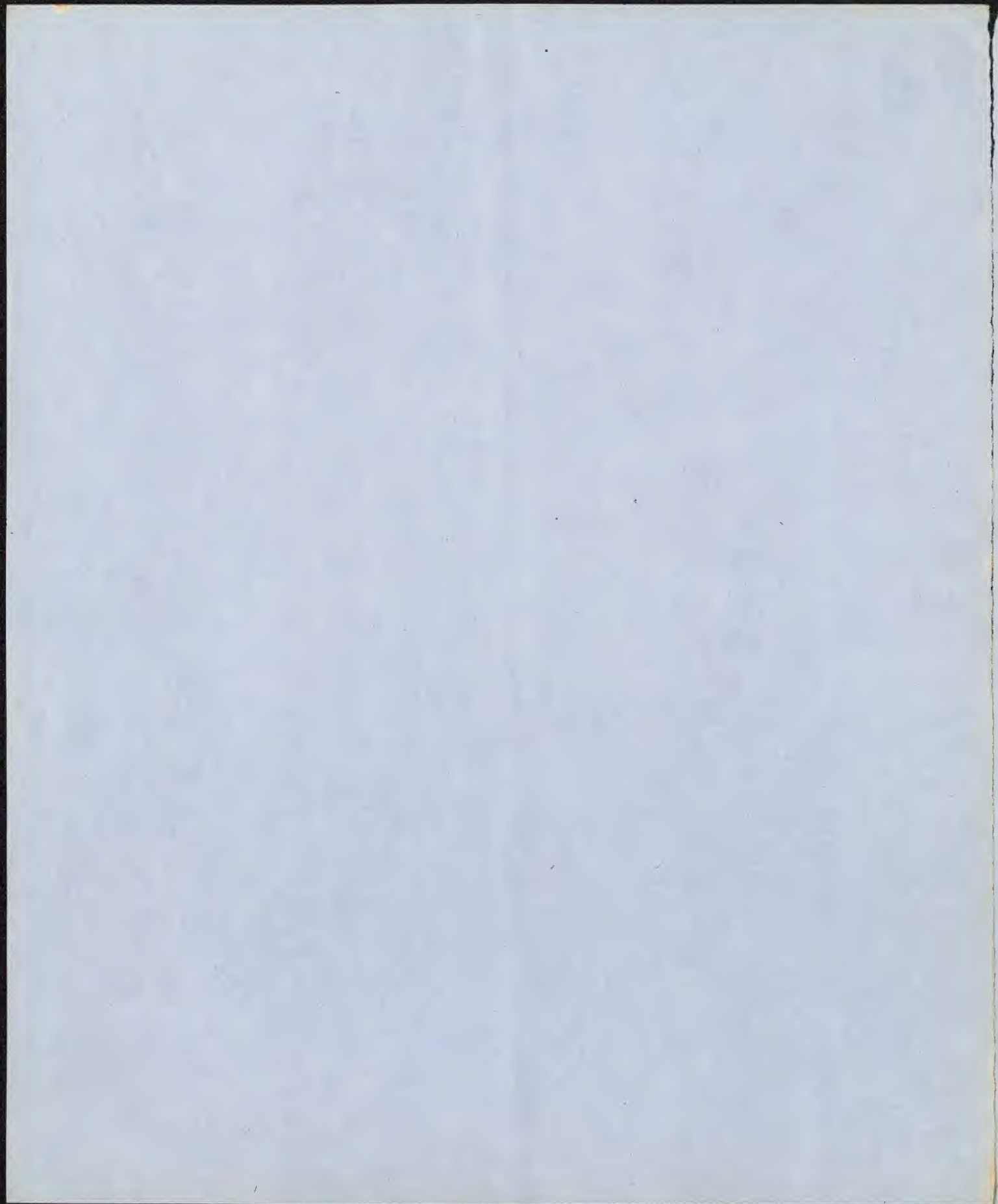


Gentlemen, — I do not wish to dis-
courage you, ^{now,} at the outset of your
career as medical men, by this
display of the errors & deficiencies of
the science and the art you have chosen;
but, rather, to let the thought animate
you of how much there is ^{yet} left which
you may do, — especially if from the
very beginning of your studies, — you
proceed step by step with a pure logic, —
a correct method, and unerring induction,
under guidance of inexorable truth.
As a teacher of the Institutes ^{or Principles} of
Medicine, — I wish that you ~~should~~ see
~~how~~ it is capable of principles, — that it
has need of them, — and that we have
need of work, every one and all of us,
to establish them upon a sure foundation.

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In some special Directions we may point out to you great fields of labor, almost white unto harvest, - waiting for men earnest in pursuit of truth, to put in their sickles and reap. -

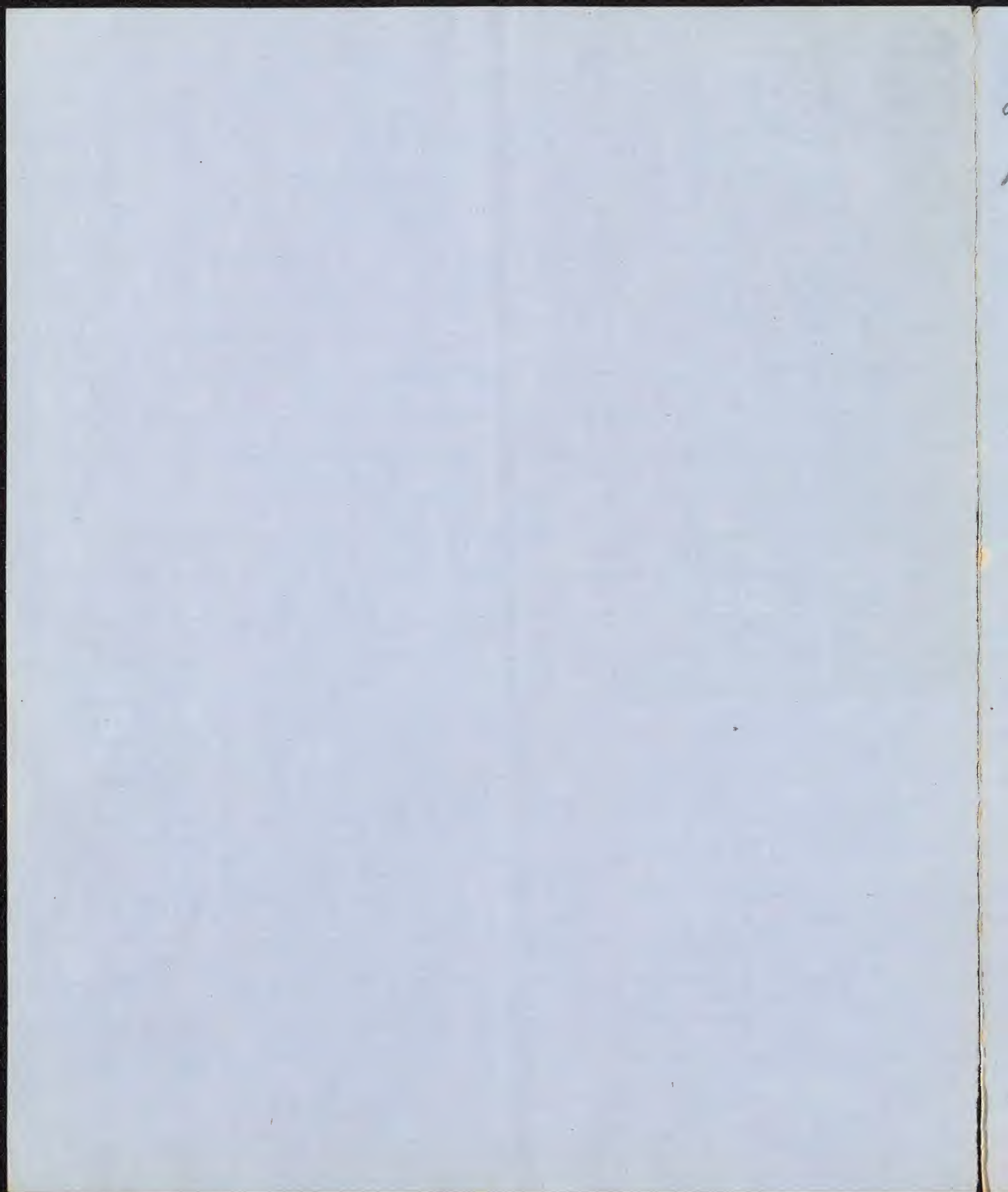
We have, for instance, - the whole Domain of Physiology: a glorious science in itself; almost, as yet, in its infancy. For ~~more than~~ 2000 years have the functions of man's framework been observed, - commented upon and recorded, - and interference with these functions boldly ventured upon in the remedial treatment of disease. And yet, how long is it since it was known that the ^{dark} ~~red~~ blood flowed from the ~~arteries~~ veins into the heart & from the heart back through the ^{purified,} ~~lungs,~~ ^{with} the system? Harvey wrote his treatise "De motu Sanguinis" only in 1879 or 1820. Who can tell us, today, - the uses of the spleen, - so prominent an object in your dissection of the upper abdomen?



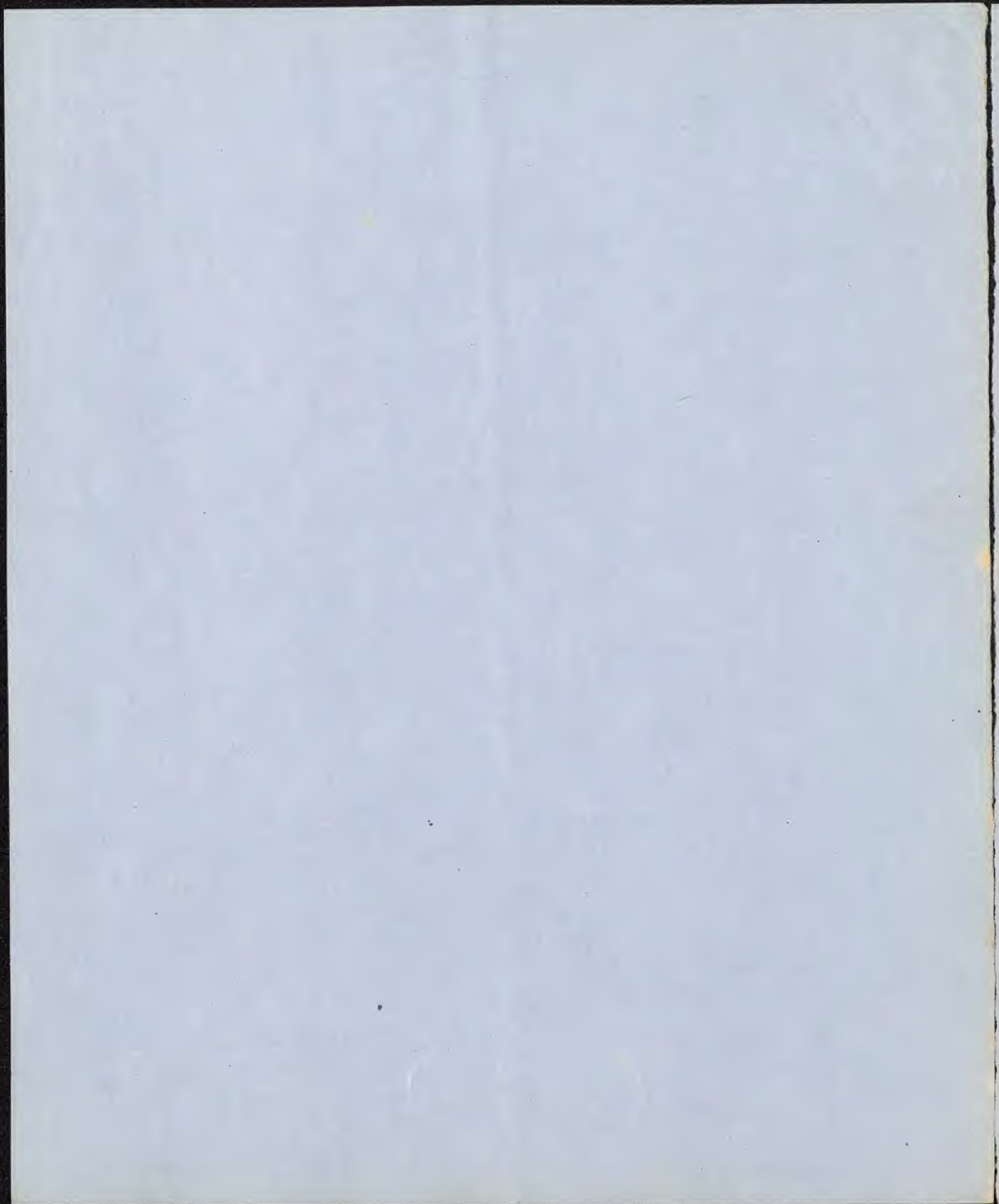
Does it make, - or disintegrate blood-
-vessels? Is it a diverticulum of blood, only, -
or ~~is it~~ a true gland? Hypothesis, like
echo, answers, - in various language, -
all uncertain. And, on like uncertainty
rests the true use of the blood corpuscles
themselves; and of the lymphatic glands;
and even, - to some extent, of the bile.

Nor can we give you, gentlemen, - anything like
a ^{complete} ~~rational~~ exposition of what might be
called the rationale of the brain and
nervous system. Much of physiology ^{therefore} ~~is~~
yet in darkness; but, when light pervades
this body of obscurity & yet of so great wonder,
how great will be that light!

When Physiology becomes a complete science,
then may pathology grow to completeness
also; and a rational therapeutics may then
alone have birth, - whose ^{embryonic} rudiments we



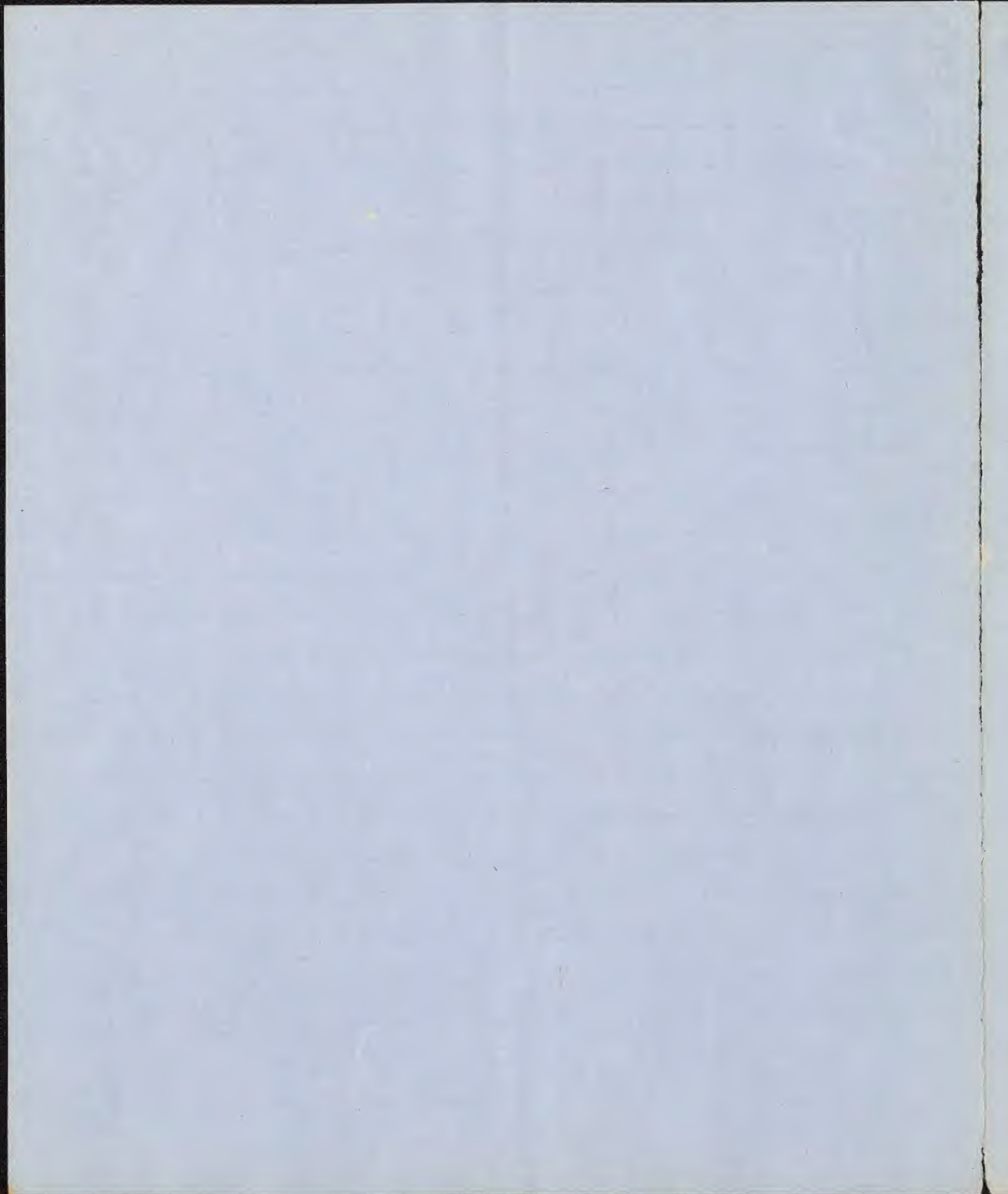
now see but as thro a glass, darkly.
~~Among~~ ~~the~~ strict medical inquiries, — very great
enlargement of ^{the range of} our simple radical facts
is wanting, especially as to the real
causes, — and ^{as to} the effects of diseases,
and, as to the exact effects of medicines
& other remedial agencies upon the body.
As to the causes, ^{I can,} — and as to the effects
of diseases, — and the true effects of
remedies upon the body. In this is meant of
course not the effects ~~of~~ upon symptoms
merely, — but upon the actual substances
& mode of action of the different solid &
fluid portions of the organism. This known, —
we will have something tangible to act upon; —
where now all is ^{often} vague and tentative, — a
mere science ~~(or rather art)~~ of probabilities.
But, I will leave this topic, — to dwell



upon what will be vastly more agreeable
to your ears, — as well as to my
^{own} wish; — ~~the~~ ^{the} real possessions of
this ^{our} art of medicine, — its true scientific
promise, — and its high hope.

Iron, — Lignum, — Lonic, — Ether, — nuxom. & chemistry &c
The lancet, — opium, — quinine, — mercury:

Dignity & elevation of our science, — & moral grandeur of the art & practice.
Illustrate — (dicks, — Lamer, &c) by Columbia, — ed. Rush's acc. of Y. pers. — What
is the value of the display & c — ? It will help you to note Simon, — Smith
& Rush — & you can't tell your know, — we will let you know
the principles upon which is my attempt to solve the Eastern puzzle
is that of not Promethean theft, or Phœbe's sunbeam poured out of
golden of the sun to man, — we may contribute to the real
advance of the welfare of our species, — acquire more high
love & create a better of our science, — & by desert &
acquiescence to father to better men of that sort, — equal
to any limit of any aristocrat or any senator, or any other
continent, — superiority of intelligent & accomplished American
physicians! —



to illustrate this,
What name, ⁱⁿ stands higher among the great
benefactors of humanity, — than Jenner's?
To estimate the real value of ^{history of ~~his~~} vaccination,
we should look back to those years with
whose hygienic history we are not many
of us familiar; — when Small pox was
one of the greatest scourges of the world; —
the co-mate only of the Plague! In some
islands and remote countries, where vaccination
has not yet been introduced, we now and
then hear even at this day, — of its
resuming its old powers, and sweeping off
the half of whole populations — and marking
with more or less deformity, ^{most} of the survivors.
And, scarcely less gratitude might be decreed
by many suffering and trembling men, — (and
women too, even in the midst of the most terrible
of all woman's sufferings), — to those who, — natives
of our own American Soil, first devised the means

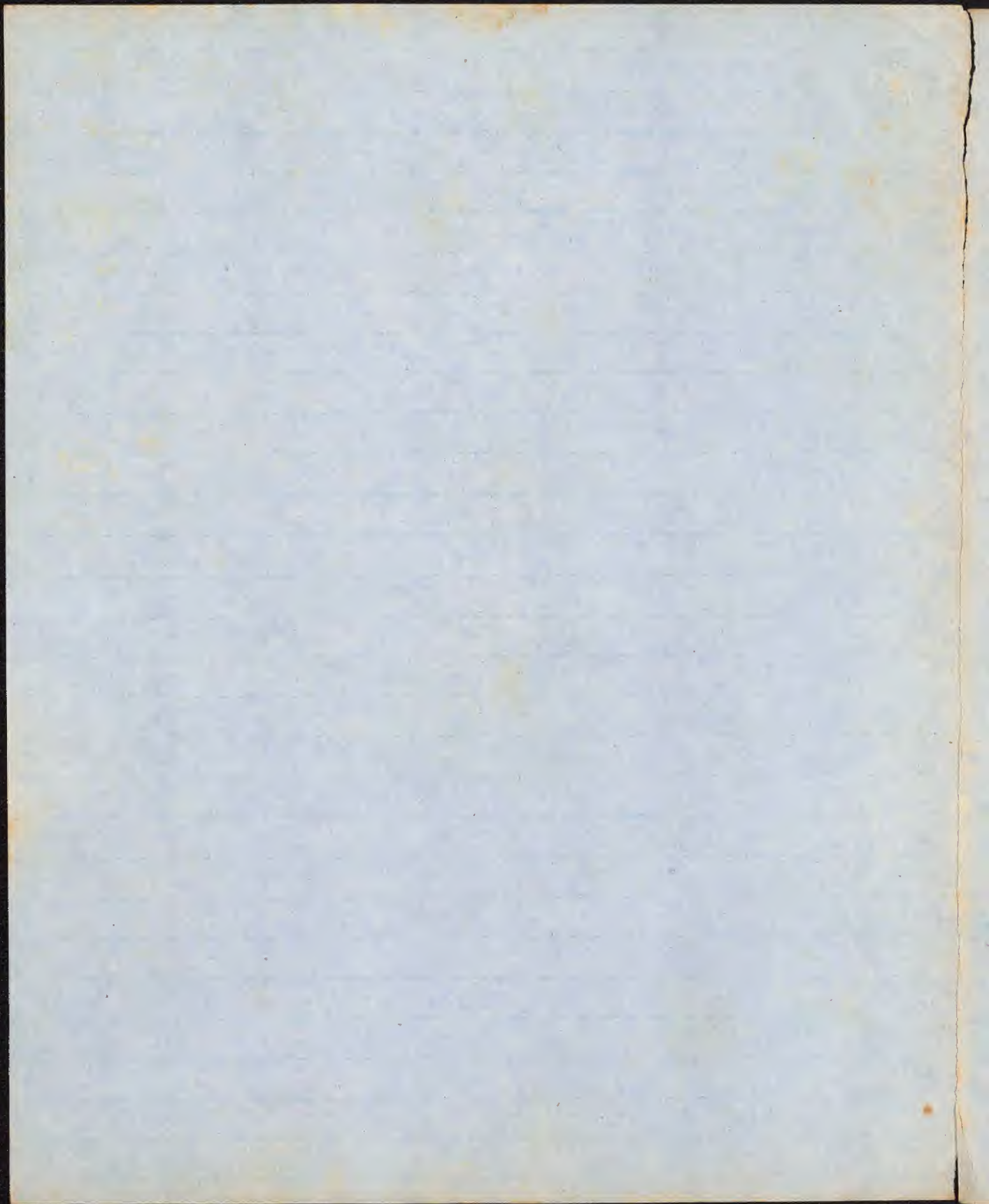
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of easily, and safely lending more than
balm, — a perfect, transient Lethe,
to nerves wrung and writhing with the
agonies of intolerable pain. The blessing
of artificial anaesthesia, — of etherization,
we boast as an American discovery; for
although chloroform, the most powerful of the
anesthetics, was introduced by Simpson of
Edinburgh, — it was secondary in date,
and is more doubtful and dangerous in use.

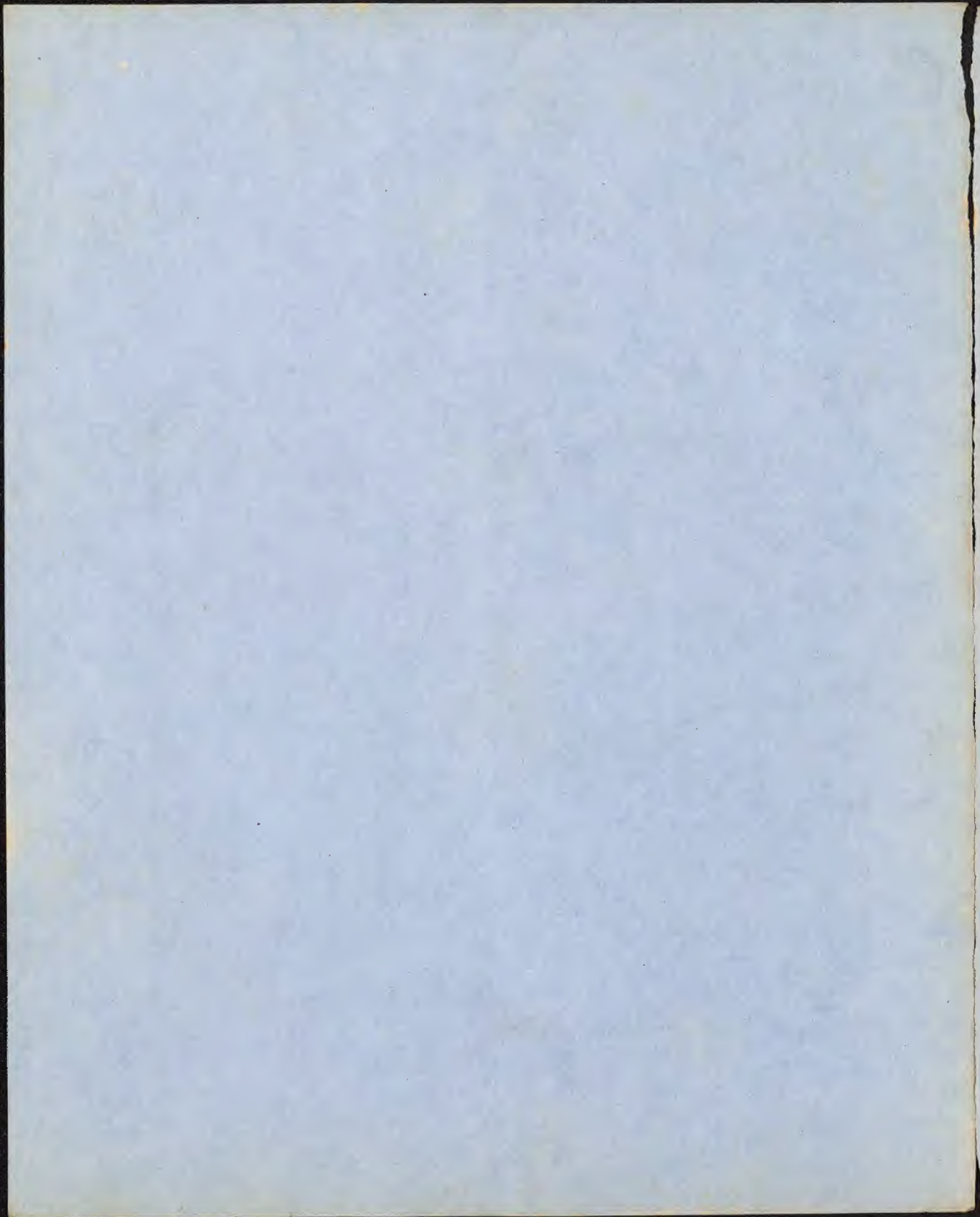
But, in the slow and steady advance
of less brilliant ^{science} ~~scientific progress~~, — much has
been achieved, — much has been ~~than~~ even added
to our stores within the last century, — to which
the physician may point with just pride.
Auenbrugger and Laennec gave us principles by
which may be applied the mechanism of acoustics
to the appreciation of disease within the body;

Dear Sir,
I have the honor to acknowledge
the receipt of your letter of the
10th inst. in relation to the
subject of the same. I am
pleased to hear that you are
interested in the same, and
I am sure that you will find
the information which I have
the honor to send you in
this reply to be of service
to you. I am, Sir, very
respectfully,
Your obedient servant,
J. M. Smith

a beautiful discovery! Eentlemen, - if
so many ^{medical men} thousands ~~men~~ had been, since Hippocrates
time, watching ~~the~~ ^{by} the ~~bed~~ sides of pneumonia &
phtisis & ~~the~~ ^{cardiac} disease, - and no
man ever thought of placing his ear to
the chest, - or of even sounding the hollow
thoracic walls as a carpenter does ~~the~~
masonry with his hammer, - how many more
things must there be, - which you and
I may discover, - if we set our hearts
upon it? It is worth while to think of this. =
In the methods of obtaining knowledge of disease,
too, medical men are approaching a truer
standard. With the name of Louis is as-
sociated what is called the statistical or
numerical mode of computation of disease & of
the results of treatment. It has been much
decried, - as well as by some over-rated, -
or rather mis-apprehended. It must be attained
at last, - as the only mode of ~~obtaining~~ ^{reaching} results

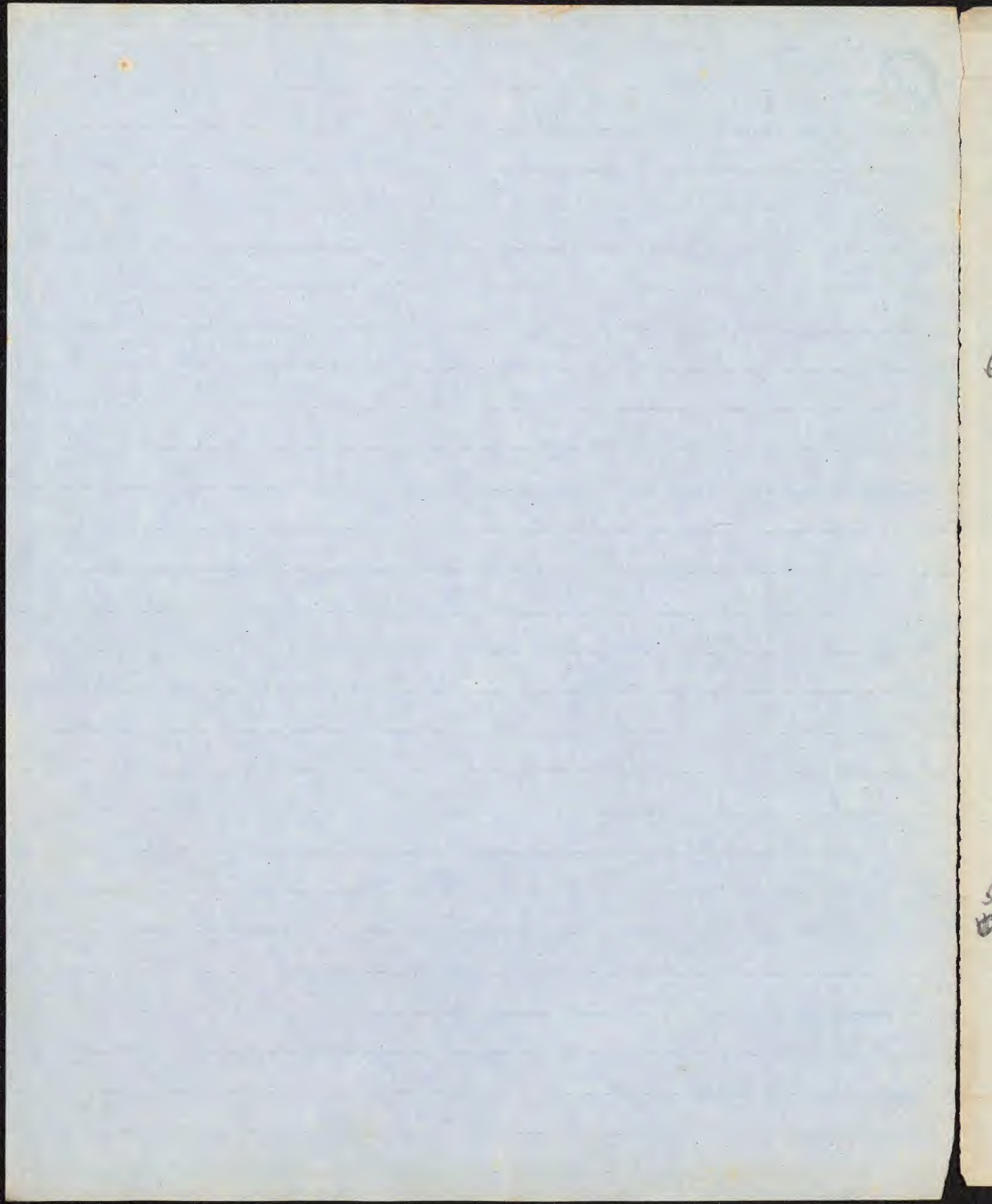


upon a scale of magnitude, and with
a degree of accuracy in proportion to the
needs of our art. It is certainly not pos-
sible for any science of results to become
perfect without numerical details; it is
only in the Kind of comparison, — the absence
of accuracy in the concomitant observation &
report, — that difficulties lie which, so far,
have made statistical medical record a
thing to be wished for, — seldom obtained.
We are going forward, however, — in this as in
other things. The microscope is opening a new
world for us, — as rich ^{almost} below our unaided
ken as the telescopic heavens rise above us. It
has altered the very language of technical med-
icine; has given a new alphabet to physio-
logy; and is unravelling the mysteries of
pathological ^{phenomena} ~~effects~~, — so that we may walk ^{now} ~~sure~~ mentally
almost in safety amidst their obscurity. Chemistry
has aided, too, — in this work: it has very much
more work to do! ^{for here} Alps upon Alps arise!



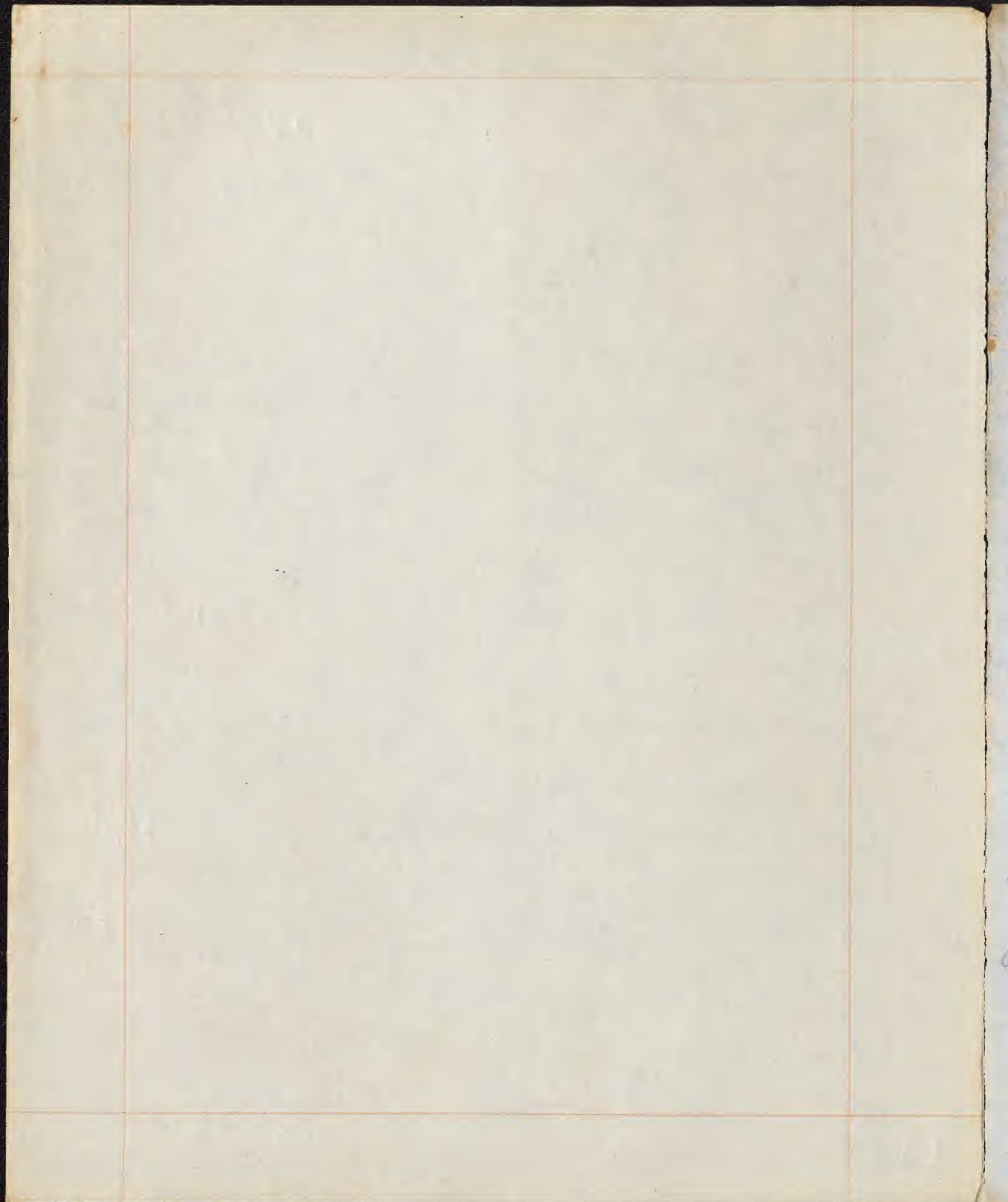
To you, gentlemen, however, — who have
chosen the study of medicine, with, no
doubt, a full appreciation of its treasures
& value, — I have no need to urge any
plea or ~~an~~ argument in favor of it. I do
not need ^{them at all, now} to mention opium, — quinine, — mercury;
nor, the lancet; — which, once a very hero
amongst remedies — has now, unjustly, sunk to
~~such temporary~~ ^{disrepute}, — ~~that~~ that, almost, there are

"none so poor to do it reverence." I
have no need to eulogise an art to those who
are enlisted for it. But, it may be, ^{still}, well to
urge you, once more before you enter on
the hard labor of the session's study, — to
have confidence in the dignity of your pro-
fession. Does quackery alarm you? Hypocrisy
& pretension are but the tributes paid by vice &
ignorance to truth. The world would not crowd
after the counterfeit, — if the genuine metal were
not gold. Do you hear at times, and see around
you sad evidence that the physician is not



not find, within these walls, any ^{real} deficiency
in the means, ~~or~~ materials, ~~or~~ ^{and} prompt
assistance, necessary for such a preparation.
In my colleagues I say ~~it~~ without hesitancy,
you will meet with ^{such} energy, ability, and learning,
~~it~~ ^{are} amply sufficient for all the purposes of ~~the~~
course of ~~your~~ medical instruction; ~~and~~ for myself,
though I ~~shall~~ shrink, ~~often~~, almost, in discomfiture,
from the ^{magnitude of the} task ~~I have~~ set before me, yet the
defects, which will be great, and the errors, which
may be many, that you may have to ^{in the coming course,} regret, ~~shall~~
~~not~~ be made up, so far as possible, by earnest
devotion to my subject, and ^{strong} interest in your
welfare; what, I hope, will ^{mainly} prevent us from falling
very far short of our ^{main} design. pupils and

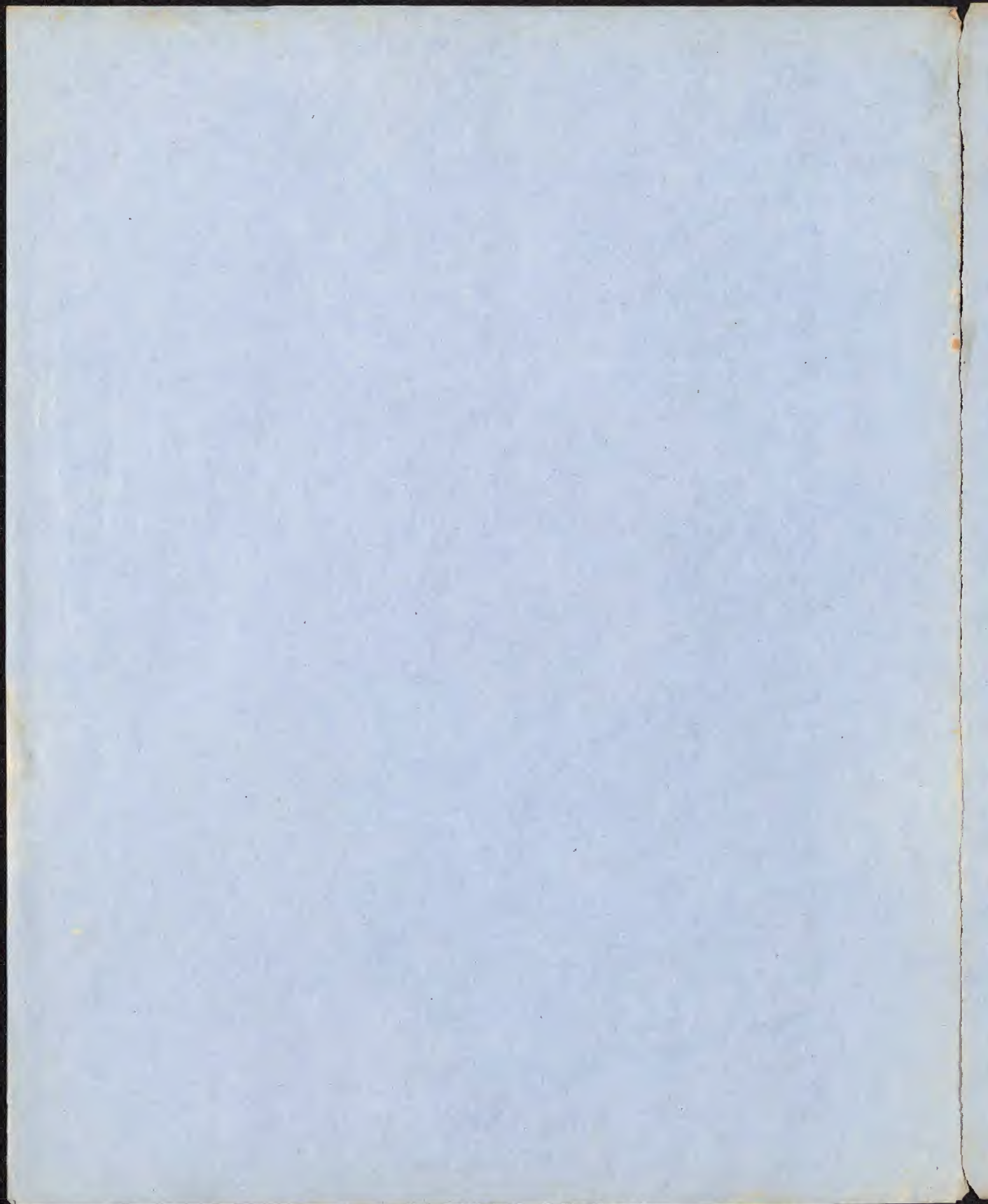
I trust that ^{as it reaches} you ~~may~~ ^{hear} the same account of the success of our graduates,
~~your part~~ ^{from every corner of the union.} for our ^{common} purpose, — I trust,
Gentlemen, that it may prove no ^{or idle} vain bravado to say,
as I have ^{here} said before, that the class of this College,
though ^{very} far from ^{being} the largest in the country, may
earn the much higher honor, of being amongst ^{the most zealous and} ~~the best~~ prepared!



With miasmata. My eyes were yellow, - and
yellowness was perceptible in my face.
My pulse was preternaturally quickened, -
and I had profuse sweats every night.

~~These sweats were so offensive, - as to oblige~~
~~me to draw the bed clothes close~~

But my nights were rendered disagreeable,
not only ^{thus,} ~~by these sweats,~~ but by the want
of my usual sleep, produced by frequent
Knocks at my door, - and by anxiety. I
went to bed from habit only, - for it ceased
to afford me rest or refreshment. When it was
evening I wished for morning; and when it was
morning, the prospect of the labours of the day, at
which I often shuddered, caused me to wish
for the return of evening. "Yet," - says this
noble martyr to duty, - "Altho', the success of
my practice gave a tone to my mind, - which
imparted preternatural vigor to my body.
It was meat and drink to me to fulfil the duties



I owed to my fellow citizens, in this time of great and universal distress.

"Now," — he continues, — "time was too precious to be spent in counting the number of persons who called on me for advice. I was obliged to refuse many every day. My sister counted 47 in one forenoon before eleven o'clock. Many of them left my door with tears, but they did not feel more distress ^{in refusing to attend them} than I, — I recollect, — and even yet with pain, that I tore myself at one time from five persons, ~~in Albanian alley~~, — who attempted to stop me, — by suddenly whipping my horse, and driving my chair as speedily as possible beyond the reach of their cries."

I will ~~give~~ ^{show} you no more ^{of this} sad account; — you may ^{easily} see how, in these times ^{that try men's souls}, — the physician is valued.

